

NATURAL RESOURCES CONSERVATION SERVICE  
CONSERVATION PRACTICE STANDARD

**HEDGEROW PLANTING**

**(Ft.)**

**CODE 422**

**DEFINITION**

Establishing a living fence of shrubs or trees in, across, or around a field.

**PURPOSE**

To delineate field boundaries, serve as fences, establish contour guidelines, provide wildlife food and cover, provide screens, or improve the landscape.

**CONDITIONS WHERE PRACTICE APPLIES**

In, across, or around fields.

**SPECIFICATIONS**

A. Erosion Control. Adequate erosion control must be maintained at all times.

B. Planting.

1. Design. Seedlings may be set in single or multiple rows not to exceed 4 rows. If a multiple row planting is made, the rows shall be parallel and plants staggered within the row. Trees and shrubs should not be mixed within the same row. Tree and shrub rows can be used in a combination, if the shrub rows are the outside rows.
2. Site Preparation. Remove existing vegetation by tillage. Where tillage is not possible, remove excessive vegetative competition by use of herbicides\* or hand methods. All competing vegetation must be killed for a minimum width of 24 inches on each side of row.
3. Date. For planting dates refer to Woodland Tree Planting (612) Standard and Specifications.
4. Fertilization. Sites of low fertility and pH may need lime and fertilizer. For best results use a soil test.

In lieu of a soil test use:

- (a) Lime (on acid soils) 100 lbs. per 1,000-sq. ft. or 2 ton per acre of Agricultural Ground Limestone or equivalent.
- (b) Fertilizers. Apply a minimum total of 80 pounds of 5-10-10 or equivalent fertilizer per 1,000 lineal feet of individual row at the time of planting. Individual slow release fertilizer packets may be used at the rate of one 2 oz. Packet per seedlings, with a maximum analysis of 18% (N), 10% (P), and 18% (K).

C. Management.

1. Livestock. Protect planting from livestock at all times.
2. Vegetation. Control all competing vegetation for the first growing season, or longer until the plants are well established. Accepted methods such as mulching, herbicides\*, and cultivation may be used. In the second year, replace dead plants.
3. Protection. Protect from herbicide drift, mowing, and damage by cultural practices.

D. Planting Stock.

Source of Stock:

1. The Ohio Department of Natural Resources, Division of Forestry and Division of Wildlife may be contacted concerning availability of nursery stock.
  2. Private nurseries can supply suitable trees and shrubs for planting.
- E. For tree and shrub recommendations by soils consult the Soil Interpretations record in Section II of the Technical Guide. The following tables can also be used.

Adapted Species, Soils, Spacing and pH Range.

Plant	Soil 1/ Adaptation	Plant Spacing		pH Range
		Within Rows	Between Rows <sup>2/</sup>	
1. Shrubs				
Tartarian Honeysuckle ( <u>Lonicera tartarica</u> )	MW-WD	2-4'	2-4'	4.5-7.8
Amur "Rem-Red" Honeysuckle ( <u>Lonicera maackii</u> )	MW-WD	2-4'	4-8'	4.5-7.8
Pfitzer Juniper ( <u>Juniperus chinensis</u> )	MW-WD	2-4'	4-6'	5.6-7.8
Silky Dogwood ( <u>Cornus amomum</u> )	VPD-MW	2-4'	6-8'	5.6-7.8
Red-osier Dogwood ( <u>Cornus stolonifera</u> )	VPD-MW	2-4'	4-6'	5.6-7.8
American Cranberrybush ( <u>Viburnum opulus americanum</u> )	SPD-MW	2-4'	4-8'	6.0-7.8
Autumn Olive ( <u>Elaeagnus umbellata</u> )	MD-WD	4-6'	8-10'	4.5-8.0
Washington Hawthorn ( <u>Crataegus phaenopyrum</u> )	MW-WD	4-6'	8-10'	6.0-7.8

	Soil <sup>1/</sup> Adaptation	Plant Spacing <sup>2/</sup>		pH Range
		Within Rows	Between Rows	
2. <u>Trees</u>				
Arborvitae (Northern White-cedar) ( <u>Thuja occidentalis</u> )	VPD-WD	5-6'	10-16'	5.6-7.8
Eastern redcedar ( <u>Juniperus virginiana</u> )	MW-WD	5-6'	10-16'	5.6-7.8
Austrian pine ( <u>Pinus nigra</u> )	SPD-WD	10-16'	10-16'	6.1-7.8
Scotch pine ( <u>Pinus strobus</u> )	MW-WD	10-16'	10-16'	5.1-7.3
Norway spruce ( <u>Picea abies</u> )	SPD-WD	10-16'	10-16'	5.1-7.3
Red pine ( <u>Pinus resinosa</u> )	MW-WD	10-16'	10-16'	4.5-6.0
Crabapple ( <u>Malus spp.</u> )	WD-MW	4-6'	8-10'	4.5-7.5

<sup>1/</sup> VPD – Very poorly drained      MW – Moderately well drained  
SPD – Somewhat poorly drained      WS – Well drained

<sup>2/</sup> When alternating species or planting two rows of different species use the greater distance for spacing, e.g. one row of Autumn Olive and one row of Tararian Honeysuckle. Use 8-10' spacing.

<sup>3/</sup> Not well suited to heavy tight clay soils.

#### Working Tools:

OH-CONS-C-31, Planting Trees and Shrubs.

Technical Guide Reference File, Technical Note, Woodland Conservation #8, Tree Planting Guide.

Technical Guide Reference File, Resource Conservation Planning and Development, Conservation Planning, Guide for Section of Tree, Shrub, and Ground Cover Plants.

#### References:

- A. Autumn Olive, USDA Leaflet 458, 10/65.
- B. Native Ohio Shrubs, Ohio Division of Wildlife. No Date.
- C. Current Agronomy Guide (for approved herbicides for woody plants).

**Addendum to Conservation Practice Standard "Hedgerow Planting" (422) ( March 1998)**

For hedgerow planting established to provide general wildlife habitat food and cover, the following specifications are to be used.

Recommended Species

Species selected should be those that provide high value for a variety of wildlife species; provide edible fruits, nuts or other plant parts; and are compatible with adjacent land uses.

Shrubs

Common Juniper (*Juniperus communis*)  
Canada Yew (*Taxus canadensis*)  
Common Alder (*Alnus serrulata*)  
Chokeberry (*Aronia sp.*)  
Silky Dogwood (*Cornus amomum*)  
Gray Dogwood (*Cornus racemosa*)  
Red-osier Dogwood (*Cornus sericea*)  
Hazelnut (*Corylus americana*)  
Amur Honeysuckle (*Lonicera maackii*)  
Tatarian Honeysuckle (*Lonicera tatarica*)  
Smooth Sumax (*Rhus glabra*)  
Staghorn Sumax (*Rhus hirta*)  
American Elderberry (*Sambucus canadensis*)  
American Cranberrybush (*Viburnum opulus americanum*)  
Blackhaw (*Viburnum prunifolium*)

Trees

Eastern Redcedar (*Juniperus virginiana*)  
Arborvitae (*Thuja occidentalis*)  
Red Pine (*Pinus resinosa*)  
White Pine (*Pinus strobus*)  
Washington hawthorn (*Crataegus phaenopyrum*)  
Crabapple (*Malus sp.*)

Spacing

Shrubs: 3 to 6 feet within row  
6 to 10 feet between rows

Trees: 10 to 16 feet within rows  
10 to 16 feet between rows

Number of Rows

Establish 2 to 5 rows. Species should be alternated between rows.